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*More than Medication—*

# Achieving Goals through Psychotherapy in Patients with Obsessive Compulsive Disorder

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## ABSTRACT

There are numerous variables to consider when planning treatment for a psychiatric disorder as complex as obsessive compulive disorder (OCD). Beyond the efficacy of the medications, one must take into account patient preferences and beliefs, as well as the impact of the disease and treatment on social and occupational functioning. Psychotherapy, specifically cognitive behavioral therapy (CBT), can serve as an addition to pharmacotherapy or as an alternative treatment, if necessary, for OCD. However, psychotherapy remains under-utilized. In this article, the authors review the available evidence supporting various treatment options for OCD and describe how psychotherapy (specifically CBT) can be used as monotherapy for OCD or as an adjunct to medication. Effective strategies for delivering CBT via its two modalities (exposure-response prevention and cognitive therapy) are described and illustrated by a composite case.

**EDITOR'S NOTE:** All cases presented in the series "Psychotherapy Rounds" are composites constructed to illustrate teaching and learning points, and are not meant to represent actual persons in treatment.

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## INTRODUCTION

Obsessive compulsive disorder (OCD) is a syndrome consisting of two phenomena: Obsessions and compulsions that occur separately or, more often, in conjunction with one another. Obsessions are intrusive, recurrent, unwanted ideas, thoughts, or impulses that are difficult to dismiss despite their disturbing nature. Compulsions are repetitive behaviors that may be observable or mental and are intended to reduce the anxiety generated by obsessions.[1] Though once thought to be quite rare, OCD is now suggested to be the fourth most common psychiatric disorder, with a lifetime prevalence of approximately 2.5 percent.[2,3] Though one may experience only obsessions or compulsions and have the diagnosis of OCD, studies suggest the majority (approximately 96%) experience both phenomena.[4] Previous studies have shown little variability in prevalence with regard to gender, with the exception of children and adolescents, whereby there seems to be a predominance of males.[5] Onset of serious symptoms of OCD typically occurs in adolescence, between the ages of 10 and 24, with an earlier onset for male individuals than female individuals.[6] The course of the illness is quite variable and dependent on numerous factors related to treatment issues. OCD tends to be chronic, with multiple relapses and mild persistent symptoms, even in the setting of remission. The likelihood of complete recovery has not been shown to exceed estimates of 20 percent.[7] Patients' inability and unwillingness to participate in adequate treatment certainly contributes further to the poor prognostic profile.

The clinical presentation of OCD has been classified further based on the predominant subtypes of obsessions and compulsions, which consistently follow certain themes. The most common obsession is fear of contamination, followed by pathological doubt, a need for symmetry, and aggressive obsessions. The most common compulsion is checking, which is followed by washing, symmetry, the need to ask or confess, and counting.[8] One of the most common clinical measurement tools for OCD, the Yale-Brown Obsessive-Compulsive Scale Symptom Checklist (Y-BOCS), has its design based on these identifiable patterns.[9] The various subtypes serve not merely for classification purposes, but have an impact on treatment considerations and outcome as well.

A number of etiologic theories have been proposed and studied throughout history. These range from psychodynamic considerations to genetic and neurobiological influences. While genetic factors have been implicated in the expression of OCD, they have not been sufficient to stand alone, therefore necessitating an environmental component to OCD development. A greater understanding of neuroanatomical considerations from the development of advanced functional imaging studies have implicated abnormalities in the orbitofrontal cortex, anterior cingulate cortex, and structures of the basal ganglia and thalamus.[1] Another important etiological consideration is the hypothesis regarding the abnormality of the serotonin neurotransmitter system in disease development. This hypothesis has been well substantiated and presently serves as the basis for much of our treatment.

Treatment options that have proven efficacy for OCD include pharmacologic agents that target the serotonin neurotransmitter system, psychotherapy, and psychosurgery. The medications currently approved for the treatment of OCD include clomipramine,[10] fluvoxamine,[11] fluoxetine,[12] sertraline,[13,14] and paroxetine,[15] though all selective serotonin reuptake inhibitors are considered efficacious.[16] A number of other medications, including atypical antipsychotics,[35] lithium,[17] and buspirone,[17] among others, have early clinical data suggestive of positive therapeutic effect as augmenting agents but failed to be effective in more systemic trials. Various psychotherapies have been utilized in the treatment of OCD, but the only modality empirically supported is cognitive-behavioral therapy (CBT).[18] This includes evidence for both the well-studied behavioral therapy exposure-response prevention (ERP)[19] and, more recently, cognitive therapy (CT).[20] Psychosurgery remains a controversial modality reserved for the most treatment resistant cases of OCD.[21]

The utility of CBT in conjunction with and as an alternative to traditional pharmacotherapy will serve as much of the remaining focus of this discussion.

## CASE PRESENTATION

Kristi is a 18-year-old woman transitioning into adulthood, attending a community college while working part-time and living with her parents. After taking an introductory psychology course in her first year of college, she discussed her concerns with her instructor, a clinical psychologist. Kristi described a number of behavioral concerns that begin almost immediately after awakening. She would spend an inordinate amount of time taking a shower, getting ready for the day and eating breakfast, to the point her morning routine consistently exceeded two hours. She would have to wash and condition her hair three times each time she showered, and go over each body part three times with soap. Following the shower, she would comb her hair only in multiples of three and had to put her clothes on in a very specific manner. Similarly at breakfast, she would keep count of the number of bites taken and times she chewed her food, always having to end on a multiple of three. Further, Kristi described other disabling behaviors that occurred frequently, including checking her alarm multiple times at night and having to go back and make sure there had been no accident each time she hit a bump in the road, making traveling nearly impossible. She best understood her emphasis on the number three as being because she was the third of four children, and that if she did not carry out activities in that manner, something bad would happen to her or her siblings.

Kristi has had no prior contact with mental health providers despite experiencing distressing behaviors related to rigid rituals and beliefs that date back to elementary school. Kristi's parents were very reluctant to consider that her concerns were anything more than bad habits, and maintained a strenuous opposition to mental health treatment in general. On several occasions when Kristi had seen her pediatrician, he voiced concern over the reported behavior and offered both a trial of an SSRI medication and a referral to a mental health provider, both of which were refused by her parents. These and other experiences had been happening for years, with Kristi's earliest memories of such behaviors dating back as far as the third grade. Kristi had made efforts to inform her family of her own concerns over her behavior to some degree prior to her current presentation. Unfortunately, as her parents had been rather dismissive and punitive in their approach, Kristi made efforts to conceal or normalize her behaviors around others. She made attempts to resist the "impulse," but to do so caused her a tremendous amount of anxiety to the point of being unable to function in any other task until she carried out the compulsion. Though Kristi had managed to conceal these symptoms from family and friends, recently she began experiencing a severe exacerbation since starting school and her job. She was performing marginally in each setting and her anxiety was "through the roof," as she now described experiencing panic attacks and increased social anxiety as well. Kristi decided that as an adult she wanted to seek care, despite her parents' rejection. Her professor referred her to a psychiatrist.

**Interaction with the psychiatrist.** Kristi reluctantly proceeded with the evaluation, still fearing what her family would think. To her surprise she found the psychiatrist empathic with her symptoms and felt understood in her fears regarding medication. The psychiatrist addressed her concerns regarding medications, particularly her concerns over potential for harm and dependence, relieving much of Kristi's anxiety about the first-line pharmacotherapy options. Further, just as strongly as medications were advocated, the psychiatrist advised her of the value of CBT in the treatment of her symptoms. Beyond the discussion of medications and therapy, the psychiatrist took time to emphasize the importance of family/social support. He advised arranging a family meeting whereby the patient and her parents could meet with the psychiatrist and her therapist for a discussion of the illness and proposed treatment. Kristi quickly agreed to this offer, and decided to proceed with medications and therapy.

## PRACTICE POINT

**CBT serves not only as an adjunct to traditional pharmacotherapy but as an empirically supported alternative with comparable efficacy.** It is somewhat disappointing that the mental health providers to which Kristi initially divulged her symptoms, as well as the pediatrician during her childhood, immediately turned their emphasis to medications in the treatment of her illness. While SSRIs and clomipramine have demonstrated remarkable efficacy in the treatment of OCD, empirical evidence supports that they are neither necessary nor sufficient for the treatment of OCD in a majority of cases.[22,23] Numerous studies have demonstrated CBT to be an equally effective technique that when used in conjunction with pharmacotherapy may yield results superior to either modality alone.[22] While Kristi may demonstrate an excellent response with an SSRI, the distress from her symptoms could have possibly been reduced much earlier if CBT had been identified as an acceptable first-line option, given her parents noted resistance to psychotropic medications.

OCD is frequently comorbid with numerous other Axis I disorders, most commonly major depressive disorder, tic disorders, and other anxiety spectrum disorders.[6,24,25] As in Kristi's case, where she described the recent emergence of panic symptoms, she may have had comorbid panic disorder. As with this diagnosis, or other comorbid conditions, medications, such as the SSRIs, clomipramine, and the atypical antipsychotics, may have a role in treating the symptoms of OCD along with another comorbid condition. With estimates of lifetime prevalence at 67 percent for major depressive

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**TABLE 1. Domains of dysfunctional beliefs associated with OCD**

| Belief domain | Description |
|---|---|
| Excessive responsibility | Belief that one has the special power to cause, and (or) the duty to prevent, negative outcomes |
| Overimportance of thoughts | Belief that the mere presence of a thought indicates that the thought is significant (for example, the belief that the thought has ethical or moral ramifications or that thinking the thought increases the probability of the corresponding behavior or event) |
| Need to control thoughts | Belief that complete control over one's thoughts is both necessary and possible |
| Overestimation of threat | Belief that negative events are especially likely and would be especially awful |
| Perfectionism | Belief that mistakes and imperfection are intolerable |
| Intolerance for uncertainty | Belief that it is necessary and possible to be completely certain that negative outcomes will not occur |

disorder in patients with OCD, the argument for use of antidepressants to target both disorders is difficult to ignore.[26] Similarly for anxiety disorders and tic disorders, if SSRIs or antipsychotics can significantly reduce symptoms of both comorbid diagnoses, than barring other contraindications a trial is certainly warranted. The provision that these medications have demonstrated efficacy in the treatment of OCD along with some of the more common comorbid conditions does not eliminate CBT as an important treatment option. Rather, it can be a welcome addition to the medications to increase the treatment response to OCD and potentially prevent future relapses.

With the advent of medication, therapy appears to be an underutilized modality in the treatment of OCD, with one study showing that only 7.5 percent of patients with OCD had experienced a trial of CBT.[27]

Over the past few years, a number of studies have looked at a comparison of the CBT options available, more specifically, broken down into cognitive therapy and the behavioral treatment exposure response prevention (ERP).[20,28] The effects of ERP have been well documented for a number of years, and recent studies on cognitive therapy suggest that it is an equal, if not superior, treatment modality.[29–31]

There are limited studies evaluating the combination of the two modalities. One article suggests they are likely complimentary, as adding CT to ERP helps ease adherence for ERP, by addressing the associated anxiety. Similarly CT appears most effective when employing behavioral strategies/assignments similar to those practiced with ERP.[20] Another study suggests that CT in combination with ERP had results no greater than ERP alone.[28] The area of combination treatment is of relatively new interest and certainly warrants additional investigation.

## CASE PRESENTATION—THE FAMILY MEETING

While initially there was the expectation from both the psychiatrist and the therapist that the parents would be adversarial to Kristi's treatment, guilt ended up being the hallmark of the parents' presentation. Kristi had described many of her rituals and the thoughts and fears driving them candidly within the session with her parents. Upon understanding the difficulty that she faced with daily life, Kristi's father voiced the guilt he had felt by treating her behavior as "quirks" or "bad habits." He further disclosed the shame he felt for wanting to minimize the behaviors so that he did not have to face the possibility that there was something "wrong" with his daughter. By the end of the session, the parents obtained an understanding of the treatment plan and were supportive of both psychotherapy and pharmacotherapy for their daughter. They had agreed to help do things at home to reduce triggers for Kristi and encouraged her to be completely open as to what she was experiencing. Kristi's relief was evident and her appreciation of having the various avenues of treatment initiated was voiced.

## PRACTICE POINT—INCLUDING THE FAMILY

As in Kristi's case, including and educating the family on the nature of the disease is paramount. Unlike many psychiatric disorders, patients with OCD typically have good insight into the absurdity or irrationality of their obsessions and compulsions. They accordingly often take steps to hide the incredible anxiety about the embarrassing thoughts and behaviors. Similarly, family members of a loved one exhibiting the symptoms of OCD may not understand the associated fear and anxiety the individual may be experiencing. Further, they may not be aware that the behaviors are in fact pathological and that there are effective treatments available. This

lack of understanding often prevents them from serving as an advocate for the individual to get the treatment he or she needs. Educating the family serves not only to help them understand the disease but to assist their loved one in the treatment process. Once family members or other sources of support become involved in the individual's care it is important that the family members be made aware of the impact their actions can have on the treatment process. Studies have shown that a family's efforts to accommodate the compulsive behaviors are more often detrimental to the patient suffering with OCD. Similarly, distress exhibited by the family may also serve as a hindrance for treatment, as it may increase anxiety in the patient.[29] Therefore, just having a family that is supportive is not sufficient for a positive treatment outcome, unless they have an understanding of the impact their behaviors and attitudes may have on the illness.

## KEY POINTS—THE THERAPEUTIC TECHNIQUES

**CBT: Exposure response prevention (ERP) and cognitive therapy.** ERP is grounded in the principal of desensitization from prolonged exposure to anxiety- or fear-provoking stimuli. For the treatment of OCD, clinical ERP involves a systematic, prolonged exposure to situations that provoke obsessional fear, along with a forced abstinence from the compulsive behaviors used to reduce the anxiety.[20] The technique is therapist-guided with exposure situations supervised *in vivo* in the session, along with self-exposure assignments given for the patient between sessions. Treatment is typically of brief duration with varying degrees of intensity. One well-documented format involves eight weeks of twice-weekly sessions following the initial intake session(s). Inherent in the treatment is the psychoeducational component whereby it is clearly delineated to the patient how ERP is proposed to help in the treatment of OCD.

The mechanisms of action for ERP have been broken down into a behavioral component, a cognitive component, and changes in self-efficacy.[20] The behavioral component provides for the potential extinction of conditioned anxiety through the repeated response, i.e., compulsion and prevention. The cognitive component of ERP provides for the identification and correction of distorted beliefs and thought processes that perpetuate the compulsions. As the unpairing of the stimulus and feared response occur through repeated exposure, the new corrected thoughts become incorporated into the patients' belief system.

In recent years cognitive therapy has gained support for treatment of OCD just as in other anxiety disorders. Where the anxiety generated from ERP may be intolerable, or at least undesirable in many patients, cognitive therapy offers a similar focus with less emphasis on prolonged exposure to anxiety provoking stimuli. The basis of CT is the rational and evidence-based challenging and correction of faulty and dysfunctional thoughts and beliefs thought to underlie obsessional fear.[30] Intrusive thoughts occur commonly outside of psychopathology, but become obsessional when the individual assumes an undue amount of responsibility for controlling the content of the intrusive thought. Similarly, compulsions represent an attempt to rid oneself of the intrusion, i.e., obsession, and prevent feared adverse consequences. Targeting these behaviors with cognitive therapy involves identifying and repeatedly challenging and correcting a number of dysfunctional beliefs that serve as the foundation for OCD. Table 1, developed from an OCD work group, is an expert consensus of the most common cognitive distortions found in OCD.[20,31]

## PRACTICE POINT: EXAMPLE OF ERP WITH KRISTI

**Psychiatrist:** Tell me about your breakfast routine again.

**Kristi:** I try to not even eat, it's so annoying. Every morning when I have breakfast I have to keep a count of the number of bites of food I take and the number of times I chew, so that I end on a multiple of three.

**Psychiatrist:** What would happen if you didn't end on a multiple of three?

**Kristi:** I feel like something bad will happen to my little sister. I know it sounds stupid, and I've tried to resist but I can't.

**Psychiatrist:** How does it feel when you try to resist?

Where the anxiety generated from ERP may be intolerable, or at least undesirable, in many patients cognitive therapy offers a similar focus with less emphasis on prolonged exposure to anxiety-provoking stimuli.

**Kristi:** Terrible! I get so anxious I can hardly stand it. I keep thinking about something bad happening so I finally just give in and take the next bite.

**Psychiatrist:** What is the longest you have been able to hold out?

**Kristi:** I don't know, I guess a couple of minutes.

**Psychiatrist:** And nothing bad happened during the times you did

hold out. What if you were to attempt to hold out, and then have your food taken away, so that it wasn't an option for a period of time?

**Kristi:** I don't know. I would imagine I would just be a nervous wreck for a while.

**Psychiatrist:** How about we try that in the session next time. Bring your breakfast and I will hold on to it until the end of the session or until you cannot tolerate it any longer, and we'll see how you do.

Here the psychiatrist prepares Kristi for a trial of ERP to be conducted in the therapy session. The anxiety will be evoked as she will be exposed to the stimulus and made unable to carry out her compulsion. Over repeated trials of this exercise in session or on her own, Kristi will habituate to the anxiety and ultimately find that in refraining from carrying out the compulsion, the feared consequences are not happening.

## PRACTICE POINT: EXAMPLE OF CT WITH KRISTI

**Psychiatrist:** Tell me about your breakfast routine again.

**Kristi:** I try to not even eat, it's so annoying. Every morning when I have breakfast I have to keep a count of the number of bites of food I take and the number of times I chew, so that I end on a multiple of three.

**Psychiatrist:** What would happen if you didn't end on a multiple of three?

**Kristi:** I feel like something bad will happen to my little sister. I know it sounds stupid, and I've tried to resist but I can't.

**Psychiatrist:** That certainly seems to place a lot of responsibility in your hands.

**Kristi:** I guess so.

**Psychiatrist:** When was the last time something bad happened to your sister?

**Kristi:** She sprained her ankle playing soccer last year.

**Psychiatrist:** Did your eating behavior cause that?

**Kristi:** No, the wet ground did.

**Psychiatrist:** Have all the bad things that happened to her been unrelated to your efforts to prevent harm by eating in such a manner.

**Kristi:** I guess so. Things happened even when I did things like I was supposed to.

**Psychiatrist:** So, what I am hearing is that it seems her behavior or events outside your control contribute more to what happens to her. Is that right?

**Kristi:** Yeah, it seems that way.

Here Kristi demonstrates one of the most common cognitive distortions associated with OCD, excessive responsibility. She feels her specific behavior or lack thereof has the potential to cause harm to her sister. In this exercise, the psychiatrist exposes her faulty logic and challenges her to question the unlikely validity of her belief. By the end of the brief interaction, she has demonstrated some insight into her dysfunctional belief and will be better prepared for challenging the compulsion. The treatment can continue beyond the session as well, with appropriately selected homework assignments aimed at correcting these distortions.

## CASE PRESENTATION—RESPONSE TO COGNITIVE BEHAVIORAL THERAPY

Upon eagerly entering into treatment, Kristi began to note improvement right away. Within a couple of weeks after initiating twice-weekly therapy sessions and sertraline, Kristi noticed a marked decrease in the amount of time spent with her morning routine. She showered in less time by resisting the compulsion to carry out the washing ritual described. She experienced less anxiety as she learned to successfully resist the compulsion, resulting in increased confidence. While certainly not in remission, Kristi was pleased with the early response to treatment and continued enthusiastically. While Kristi was engaged in therapy and adherent with her medication, her parents' involvement was similarly therapeutic. Following the family meeting, her parents facilitated communication with Kristi regarding her experiences. They served not only as emotional support, but actively took measures to reduce triggers for the compulsions within their home, and had her recount to them the tools she was learning in therapy to the point she was comfortable.

After approximately 12 weeks of intensive therapy, along with medication and her parents' support, Kristi felt as though she again had control over most aspects of her daily life. Though the pathology had not completely disappeared, Kristi had fewer intrusive thoughts and was able

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to consistently resist the compulsions with the tools she had learned in therapy. Kristi's father also called to report the improvement he had seen in recent months, not only in her behaviors but her mood as well. He was tearful as he expressed his appreciation for the improvement and for their inclusion in the treatment plan.

## SUMMARY

While pharmacotherapy has become the mainstay for the current treatment of OCD due to available effective medication, substantial evidence supports cognitive-behavioral therapy as a treatment option. Studies have clearly supported equal, if not greater efficacy of ERP, as well as cognitive therapy over the years. With slight variance observed in the few head to head comparison trials of the two CBT modalities, it ultimately appears that both have similar efficacy. The selection of the most appropriate method would then best be left to the mental health professional's skills and patient tolerability. While tolerability is certainly an issue with estimated dropout rates in excess of 30 percent for ERP, it appears that issues related to access and inadequate training in CBT techniques remain the greatest barrier currently to utilization of these beneficial treatment modalities for OCD.

## REFERENCES


1. Tasman A, Kay J, Lieberman J. *Psychiatry, Second Edition.* Hoboken, NJ: John Wiley & Sons Ltd., 2003:1331–61.
2. Myers JK, Weissman MM, Tischler GL, et al. Six month prevalence of psychiatric disorders in three communities, 1980 to 1982. *Arch Gen Psychiatry* 1984;41:949–58.
3. Robins LN, Helzer JE, Weissman MM, et al. Lifetime prevalence of specific psychiatric disorders in three sites. *Arch Gen Psychiatry* 1984;41:958–67.
4. Foa EB, Kozak MJ. DSM-IV Field trial: Obsessive-compulsive disorder. *Am J Psychiatry* 1995;152:90–6.
5. Leonard HL, Swedo SE, Rapoport JL, et al. Treatment of childhood obsessive-compulsive disorder with clomipramine and desipramine: A double-blind crossover comparison. *Arch Gen Psychiatry* 1989;46:1088–92.
6. Rasmussen SA, Eisen JL. The epidemiology and clinical features of obsessive-compulsive disorder. In: Jenike M, Baer L, Minichello W (eds). *Obsessive-Compulsive Disorders: Practical Management.* St. Louis, M: Mosby, 1998.
7. Skoog G, Skoog I . A 40-year follow-up of patients with obsessive-compulsive disorder. *Arch Gen Psychiatry* 1999;56:121–27.
8. Swedo SE, Schapiro MB, Grady CL, et al. Obsessive-Compulsive Disorder in children and adolescents: Clinical phenomenology of 70 consecutive cases. *Arch Gen Psychiatry* 1989;46:335–41.
9. Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown Obsessive-Compulsive Scale: Development, use, and reliability. *Arch Gen Psychiatry* (1989;46:1006–11.
10. The Clomipramine Collaborative Study Group. Efficacy of clomipramine in OCD: Results of a multicenter double-blind trial. *Arch Gen Psychiatr* 1991;48:730–8.
11. Goodman WK, Ward H. Kahlinger A, et al. Fluvoxamine in the treatment of obsessive-compulsive disorder and related conditions. *J Clin Psychiatr* 1997;58:32–49.
12. Tollefson GD, Rampey AH, Potvin JH, et al. A multicenter investigation of fixed-dose fluoxetine in the treatment of obsessive-compulsive disorder. *Arch Gen Psychiatr* 1994;51:559–67.
13. Greist J, Chouinard G, DuBoff E, et al. Double-blind parallel comparison of three dosages of sertraline and placebo in outpatients with obsessive-compulsive disorder. *Arch Gen Psychiatr* 1995;52:289–95.
14. Greist H, Jefferson JW, Kobak KA et al. Efficacy and tolerability of serotonin transport inhibitors in obsessive-compulsive disorder. *Arch Gen Psychiatr* 1995;52:53–60.
15. Zohar J, Judge R. Paroxetine versus clomipramine in the treatment of obsessive-compulsive disorder. *Br J Psychiatry* 1996;169:468–74.
16. Greist JH, Jefferson JW. Pharmacotherapy for obsessive-compulsive disorder. *Br J Psychiatry* 1998;173(Suppl 35):64–70.
17. Jenike MA. Pharmacologic treatment of obsessive compulsive disorders. *Psychiatr Clin N Am* 19-92;15:895–919.
18. Greist JH. Behavior therapy for obsessive-compulsive disorder. *J Clin Psychiatr* 1994;55(Suppl):60–8.
19. March JS, Frances A, Carpenter D et al. The expert consensus guideline series: Treatment of obsessive-compulsive disorder. *J Clin Psychiatr* 1997;58(suppl 4).
20. Abramowitz JS. The psychological treatment of obsessive-compulsive disorder. *Can J Psychiatry* 2006;51:407–16.
21. Feldman RP, Goodrich JT. Psychosurgery: A historical overview. *Neurosurgery* 2001;48(3):647–57.
22. Tenneij NH, Van Megen HJ, Denys DA, Westenberg HG. Behavior therapy augments response of patients with obsessive-compulsive disorder responding to drug treatment. *J Clin Psychiatry* 2005;66;1169–75.
23. Eisen JL, Goodman W, Keller MB, et al. Patterns of remission and relapse in OCD: A 2-year prospective study. *J Clin Psychiatry* 1999;60:346-51.
24. Leonard HL, Lenane MC, Swedo SE, et al. Tics and Tourette's disorder: A 2-to 7-year follow-up of 54 obsessive-compulsive children. *Am J Psychiatry* 1992;149:1244–51.
25. Pitman RK, Green RC, Jenike MA, et al. Clinical comparison of Tourette's disorder and obsessive-compulsive disorder. *Am J Psychiatry* 1987;144:1166–71.
26. Rasmussen SA, Eisen JL. Phenomenology of Obsessive-Compulsive Disorder. In: Insel J, Rasmussen S (eds). *Psychobiology of Obsessive-Compulsive Disorder.* New York, NY: Springer-Verlag, 1991;743–58.
27. Franklin D. Effective OCD treatments largely overlooked. *Clinical Psychiatry News* 2006;Sept:17–18.
28. Abramowitz JS, Taylor S, McKay D. Potentials and limitations of cognitive treatments for obsessive-compulsive disorder. *Cogn Behav Ther* 2005;34:140–7.
29. Van Oppen P, De Haan E, Van Balkom AJLM, et al. Cognitive therapy and exposure in vivo in the treatment of obsessive compulsive disorder. Behav Res Ther 1995;33:379–90.
30. Whittal ML, Thordarson DS, McLean PD. Treatment of obsessive-compulsive disorder: Cognitive behavior therapy vs. exposure and response prevention. *Behav Res Ther* 2005;43(12):1559–76
31. Cottraux J, Note I, Yao SN, et al. A randomized controlled trial of cognitive therapy versus intensive behavior therapy in obsessive-compulsive disorder. *Psychother Psychosom* 2001;70:288–97.
32. Amir N, Freshman M, Foa EB. Family distress and involvement in relatives of obsessive-compulsive disorder patients. *J Anxiety Disorders* 2000;14:209–17.
33. Clark DA. Cognitive-behavioral therapy for OCD. New York, NY: Guilford Press, 2004.
34. Obsessive Compulsive Cognitions Work Group. Cognitive assessment of obsessive-compulsive disorder. *Behav Res Ther* 1997;35:667–81.
35. Koran LM, Ringold AL, Elliott MA. Olanzapine augmentation for treatment-resistant obsessive-compulsive disorder. *J Clin Psychiatry* 2000;61(7):514-7.